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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/972,010	10/05/2001	Duane Mark Baldwin	SJ09-2001-0093	4421

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INTERNATIONAL BUSINESS MACHINES CORPORATION
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INTELLECTUAL PROPERTY LAW
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EXAMINER	
CHOUDHURY, AZIZUL Q	
ART UNIT	**PAPER NUMBER**
2145	

DATE MAILED: 12/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/972,010	DUANE MARK BALDWIN ET AL	
	Examiner	Art Unit	
	Azizul Choudhury	2145	

-- Th MAILING DATE of this communicati n appears on th cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10/5/01*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *05 October 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *1/25/02*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Detailed Action

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Linde (US Pat No: US006606651B1).

1. With regards to claim 1, Linde teaches a storage area network (SAN) having a plurality of components including one or more digital data processors in communication with one or more storage devices, the improvement comprising: a first platform-specific process executing on a first one of the digital data processors, the first digital data processor executing under a first operating system, a second platform-specific process executing on a second one of the digital data processors, the second digital data processor executing under a second operating system different from the first operating system, a common platform-independent process executing on the first and the second digital data processors, the platform-independent process effecting execution of the first and second platform-specific processes via command line parameters (Linde teaches a design for a SAN that allows for multiple clients and multiple storage devices

(column 4, lines 35-44, Linde). Devices such as clients and storage devices must process commands and hence each must have processors. In addition, clients and storage devices need file systems and hence each of these elements has operating systems along with processors. Linde's design also sets out to allow clients and storage devices with different operating systems to operate together. Hence, Linde's design allows for different operating systems (column 4, lines 45-50, Linde). When a file "read or write" request is made in Linde's SAN, the client's request is sent out to the storage server and processed by the server and the storage devices. When a file request is made through a network such as Linde's (Figure 1, Linde), the process by which the command is sent out from each of the clients is platform independent as claimed. The file request command process is made through a network (for instance the process follows http or ftp through command line) and hence is network protocol dependent and not platform dependent. However, the file request command process being made from the clients still effect executions on the client machines as claimed as well. So the file request process is platform independent within the claimed design as well as Linde's design. The clients of Linde's design are able to each have different operating systems, the request is not sent out in multiple formats but instead one format. In Linde's design, the file request commands are interpreted (column 3, line 58, Linde) by the server and sent onto the appropriate storage device for processing. Hence, a driver in the server translates the basic

request commands for the storage devices to all understand (column 4, lines 8-17, Linde)).

2. With regards to claim 2, Linde teaches the SAN, further improvement wherein each of the platform-specific processes communicates with the platform-independent process via a command line interface of its respective digital data processor operating system (When a file request is made through a network such as Linde's (Figure 1, Linde), the process by which the command is sent out from each of the clients is platform independent as claimed. The file request command process is made through a network (for instance the process follows http or ftp through command line) and hence is network protocol dependent and not platform dependent. So the file request process is platform independent within the claimed design as well as Linde's design).

3. With regards to claim 3, Linde teaches the SAN, the further improvement wherein each of the first and the second operating systems can be any of a Unix™, a Windows™, Solaris, AIX operating systems (Linde's design allows for any suitable operating system (column 4, lines 45-50, Linde)).

4. With regards to claim 4, Linde teaches the SAN, the further improvement comprising a manager in communication with the common platform-independent process to transmit a request thereto for information regarding one or more

components of the SAN (Linde's design features a server (equivalent to the claimed manager) that is able to serve the common platform independent process of file requests by interpreting and send the requests to the appropriate storage devices).

5. With regards to claim 5, Linde teaches the SAN, wherein the common platform independent process responds to the request from the manager by invoking at least one of the first and second platform-specific processes (Linde's design has a storage server (manager) in between the clients and the storage devices (Figure 1, Linde). When this server (manager) returns the requested data to the client, the receipt of the data by the clients must invoke platform-specific processes as claimed).

6. With regards to claim 6, Linde teaches the SAN, the further improvement wherein the invoked platform specific process gathers information regarding one or more SAN components and transmits the information to the Standard Output/Error of its respective digital data processor (Anytime data is to be viewed, such as when it is retrieved through a SAN, the information must be transferred through Standard output/error. Linde's design, as all computing designs, allows for I/O. In addition, Linde's design supports various I/O device types (column 4, lines 8-17. Linde)).

7. With regards to claim 7, Linde teaches the SAN, the further improvement wherein the common platform independent process captures information in the Standard Output/Error transmitted by he invoked platform specific process (As stated earlier, anytime data is to be viewed, such as when it is retrieved through a SAN, the information must be transferred through Standard output/error. Such data is viewable through platform independent processes (such as web pages). Linde's design, as all computing designs, allows for I/O. In addition, Linde's design supports various I/O device types (column 4, lines 8-17. Linde)).

8. With regards to claim 8, Linde teaches the SAN, the further improvement wherein the common platform independent process transmits the captured information to the manager for further processing (If further processing is required, data is transferable to the storage server (manager) through platform independent processes such as command line (ftp and http are performable over command line)).

9. With regards to claim 9, Linde teaches the SAN, the further improvement wherein the manager comprises a query engine for transmitting the request to the common platform independent process (Linde's design features a storage server (manager) (Figure 1, Linde). The server processes requests and must locate the correct data storage device and hence inherently must comprise a query engine as claimed).

10. With regards to claim 10, Linde teaches the SAN, the further improvement wherein the query engine comprises a registry identifying the common platform independent process and the digital data processors associated therewith (Linde's design features a storage server (manager) (Figure 1, Linde). This server has a query engine as stated above and contains drivers to aid it to identify processes and platforms (column 4, lines 8-17. Linde)).

11. With regards to claim 11, Linde teaches the SAN, the further improvement wherein the registry provides one or more identifiers for communicating with the common platform independent process (Linde's design features a storage server (manager) (Figure 1, Linde). This server has a query engine as stated above and contains drivers to aid it to identify processes and platforms (column 4, lines 8-17. Linde). Such drivers contain identifiers).

12. With regards to claim 12, Linde teaches the SAN, the further improvement wherein the query engine formats the request in a mark-up language format (Linde's design uses a network by which to transmit the requests (Figure 1, Linde). Data transfer in networks commonly occurs in markup languages).

13. With regards to claim 13, Linde teaches the SAN, the further improvement wherein the mark-up language can be any of XML and HTML (Linde's design

uses a network by which to transmit the requests (Figure 1, Linde). Data transfer in networks commonly occurs in markup languages).

14. With regards to claim 14, Linde teaches the SAN, the further improvement wherein the platform independent process formats the captured information in a mark-up language format for transmission to the manager (Linde's design uses a network by which to transmit the requests (Figure 1, Linde). Data transfer in networks commonly occurs in markup languages).

15. With regards to claim 15, Linde teaches a storage area network having one or more components including one or more digital data processors and one or more storage devices in communication with the digital data processors, the improvement comprising: a manager in communication with the SAN components, a first platform-specific process executing on a first one of the digital data processors, the first digital data processor executing under a first operating system, a second platform-specific process executing on a second one of the digital data processors, the second digital data processor executing under a second operating system different from the first platform, a common platform-independent process executing on the first and the second digital data processors and communicating with the first and the second platform-specific processes via one or more command-line parameters, the managers transmits a query to the common platform-independent process to request information

regarding one or more of the SAN components and the platform independent process invokes at least one of the first and second platform-specific processes to obtain the requested information (Linde teaches a design for a SAN that allows for multiple clients and multiple storage devices (column 4, lines 35-44, Linde). Devices such as clients and storage devices must process commands and hence each must have processors. In addition, clients and storage devices need file systems and hence each of these elements has operating systems along with processors. Linde's design also sets out to allow clients and storage devices with different operating systems to operate together. Hence, Linde's design allows for different operating systems (column 4, lines 45-50, Linde). When a file "read or write" request is made in Linde's SAN, the client's request is sent out to the storage server (equivalent to the claimed manager) and processed by the server and the storage devices. When a file request is made through a network such as Linde's (Figure 1, Linde), the process by which the command is sent out from each of the clients is platform independent as claimed. The file request command process is made through a network (for instance the process follows http or ftp through command line) and hence is network protocol dependent and not platform dependent. However, the file request command process being made from the clients still effect executions on the client machines as claimed as well. So the file request process is platform independent within the claimed design as well as Linde's design. The clients of Linde's design are able to each have different operating systems, the request is not sent out in multiple formats

but instead one format. In Linde's design, the file request commands are interpreted (column 3, line 58, Linde) by the server and sent onto the appropriate storage device for processing. Hence, a driver in the server translates the basic request commands for the storage devices to all understand (column 4, lines 8-17, Linde). Finally, Linde's design features a storage server (manager) (Figure 1, Linde). The server processes requests and must locate the correct data storage device and hence inherently must comprise a query engine as claimed).

16. With regards to claim 16, Linde teaches the SAN, the further improvement wherein the invoked platform specific process gathers information regarding one or more of the SAN components and transmits the information to a command line interface of its respective digital data processor operating system (When a file request is made through a network such as Linde's (Figure 1, Linde), the process by which the command is sent out from each of the clients is platform independent as claimed. The file request command process is made through a network (for instance the process follows http or ftp through command line) and hence is network protocol dependent and not platform dependent. So the file request process is platform independent within the claimed design as well as Linde's design).

17. With regards to claim 17, Linde teaches the SAN, the further improvement wherein the common platform independent process captures the information in a

Standard Output/Error transmitted by the invoked platform specific process (As stated earlier, anytime data is to be viewed, such as when it is retrieved through a SAN, the information must be transferred through Standard output/error. Such data is viewable through platform independent processes (such as web pages). Linde's design, as all computing designs, allows for I/O. In addition, Linde's design supports various I/O device types (column 4, lines 8-17. Linde)).

18. With regards to claim 18, Linde teaches the SAN, the further improvement wherein the manager comprises a query engine for forwarding the query from the manager to the common platform independent process (Linde's design features a storage server (manager) (Figure 1, Linde). The server processes requests and must locate the correct data storage device and hence inherently must comprise a query engine as claimed).

19. With regards to claim 19, Linde teaches the SAN, the further improvement wherein the query engine comprises a registry containing information for identifying the common platform independent process and its respective digital data processors (Linde's design features a storage server (manager) (Figure 1, Linde). This server has a query engine as stated above and contains drivers to aid it to identify processes and platforms (column 4, lines 8-17. Linde)).

20. With regards to claim 20, Linde teaches the SAN, the further improvement wherein the common platform independent process registers with the registry to provide identification information thereto (Linde's design features a storage server (manager) (Figure 1, Linde). This server has a query engine as stated above and contains drivers to aid it to identify processes and platforms (column 4, lines 8-17. Linde). Such drivers contain identifiers).

Remarks

The claims as they currently stand are vastly broad and general. It is difficult to achieve an accurate portrayal of a novel SAN design using the claims. While it is not being said that the claimed invention may not be novel, the claims as they currently stand are open to various interpretations. Hence, they would benefit from the inclusion of greater details to provide a more accurate illustration of the design.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Azizul Choudhury whose telephone number is (571) 272-3909. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Harvey can be reached on (571) 272-3896. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AC

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